

In re: Dai et al.
 Application No.: 10/800,195
 Filed: March 12, 2004
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Listing of Claims

The following list of claims will replace all prior versions and listings of claims in the application.

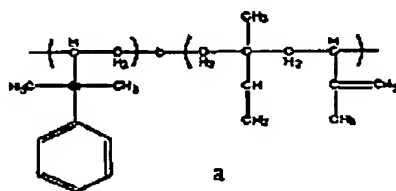
1-11. (Canceled)

12. (Previously Presented) A resist composition, comprising a silicon-containing resist polymer, wherein the silicon-containing resist polymer comprises poly(dimethylphenylvinylsilane-b-isoprene) having a molecular weight between about 17,800 and about 22,100.

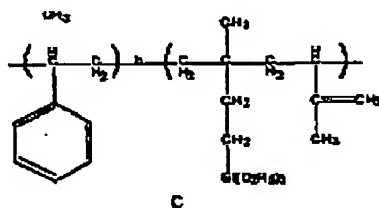
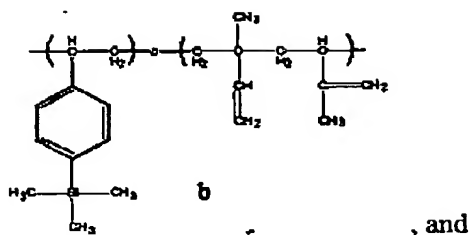
13. (Previously Presented) A resist composition, comprising a silicon-containing resist polymer, wherein the silicon-containing resist polymer comprises poly(trimethylsilylstyrene-b-isoprene) having a molecular weight between about 10,700 and about 28,700.

14-18. (Canceled)

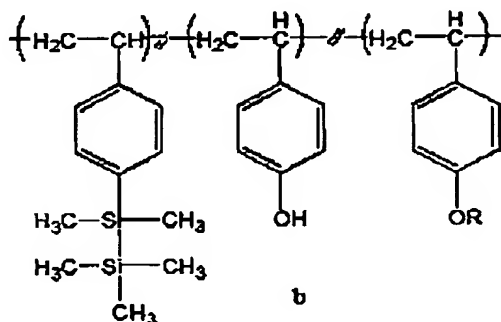
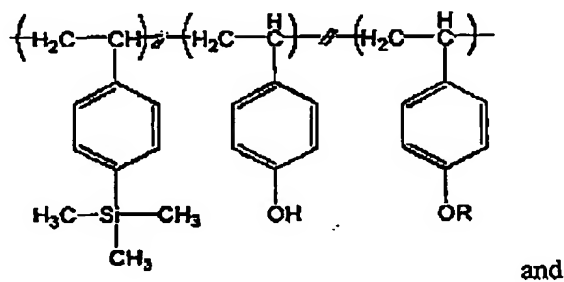
19. (Previously Presented) A resist composition, comprising a silicon-containing resist polymer, wherein at least a portion of the silicon-containing resist polymer comprises a structure selected from the group consisting of:



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20. (Previously Presented) A resist composition, comprising a silicon-containing resist polymer, wherein at least a portion of the silicon-containing resist polymer comprises a structure selected from the group consisting of



wherein R represents a protecting group.

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21. (Original) The resist composition of claim 20, wherein the protecting group R is selected from the group consisting of t-butyloxycarbonyl, trimethyl silane, and ethoxymethyl.

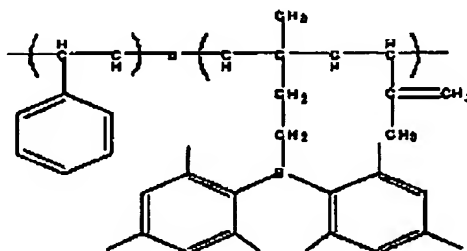
22-25. (Canceled)

26. (Currently Amended) ~~The resist composition of claim 24, A resist composition, comprising a boron-containing resist polymer,~~

wherein the boron-containing resist polymer comprises less than about 1 weight percent boron, and further wherein the boron-containing resist polymer comprises an element selected from the group consisting of carborane, carborane carboxylic acid, dimesitylborane, isoprene, styrene, vinyl compounds and combinations thereof.

27-31. (Canceled)

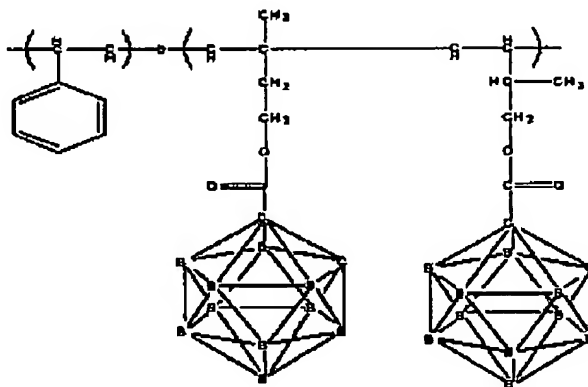
32. (Previously Presented) A resist composition, comprising a boron-containing polymer, wherein the boron-containing polymer comprises a polymer having the structure:



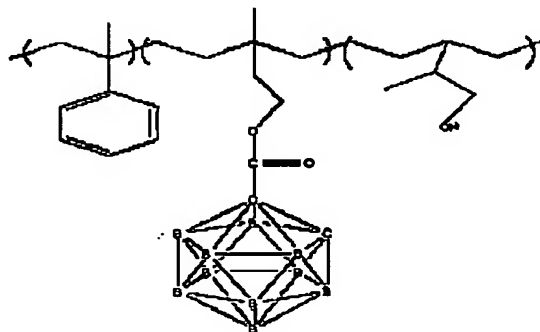
33. (Original) The resist composition of claim 32, wherein the resist composition comprises less than about 1 weight percent boron.

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34. (Previously Presented) A resist composition, comprising a boron-containing polymer, wherein the boron-containing polymer comprises a polymer having the structure:



35. (Previously Presented) A resist composition, comprising a boron-containing polymer, wherein the boron-containing polymer comprises a boron-containing polymer having the structure:



36-44. (Canceled)

45. (Previously Presented) A method for forming a boron-containing resist polymer, comprising: performing a hydroboration or esterification reaction of a boron-containing group with a polymer, wherein performing the hydroboration reaction of the boron-containing group with the polymer comprises performing the hydroboration

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reaction using dimesitylborane as the hydroboration agent to introduce dimesitylborane into the polymer.

46-47. (Canceled)

48. (Currently Amended) ~~The method of claim 44.~~ A method for forming a boron-containing resist polymer, comprising performing a hydroboration or esterification reaction of a boron-containing group with a polymer, wherein the polymer comprises a polymer selected from the group consisting of isoprene, styrene, vinyl compounds, poly(styrene-b-isoprene), hydroxylated poly(styrene-b-isoprene), poly(styrene-b-hydroxystyrene), and poly(α -methylstyrene-b-hydroxystyrene).

49-51. (Canceled)

52. (Previously Presented) A method for increasing the reactive ion etch resistance of a polymer, comprising incorporating boron atoms into the polymer, wherein incorporating boron atoms into the polymer further comprises performing hydroboration of the polymer, wherein the hydroboration agent comprises dimesitylborane.

53-66. (Canceled)